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in the contour of the cross-section of said outermost layer, each groove comprises an arc-shaped curve having a predetermined radius R centered about a vertex of a regular polygon and each segment strand between adjoining grooves comprises a straight line or an arc-shaped curve which is concave with respect to said straight line;

and wherein there is a substantially discontinuous point between the arc-shaped curve and the groove.

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4. (AMENDED) An overhead cable as set forth claim 3, wherein said arc-shaped curve is concave with respect to the straight line connecting adjoining vertexes of the regular polygon by a maximum depth D and

a ratio D/d between the maximum depth D and the diameter d of circumscribing the vertexes of the regular polygon is within a range from 0.0 to 0.018.

6. (AMENDED) An overhead cable comprising:

a tension-bearing core;

a conductive layer arranged at an outer circumference of the core; and

an outermost layer constituted by twisting together a plurality of segment strands, and having a spiral groove along the longitudinal direction in the outer circumferential surface region of each boundary portion of adjoining segment strands, wherein

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in the contour of the cross-section of said outermost layer, each groove comprises an arc-shaped curve having a predetermined radius R centered about a vertex of a regular polygon and each part between adjoining grooves comprises a straight line or an arc-shaped curve which is concave with respect to said straight line;

wherein a diameter d of a circle circumscribing the vertex of the regular polygon is within a range from 12.8 mm to 42.6 mm;

wherein said regular polygon is made within a range from a regular 12-sided polygon to a regular 24-sided polygon;

wherein said arc-shaped curve is concave with respect to the straight line connecting adjoining vertexes of the regular polygon by a maximum depth D and a

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ratio D/d between maximum depth D and the diameter d of circumscribing the vertexes of the regular polygon is within a range from 0.0 to 0.018;

wherein a ratio H/d between a maximum height H from a vertex of said regular polygon to the bottom of said groove and said diameter d is within a range from a 0.0045 to 0.0357; and

wherein a ratio H/R between said maximum height and said radius R is within a range from 0.08 to 1.0.

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8. (AMENDED) An overhead cable as set forth claim 6, wherein said diameter d is within a range from 35 mm to 38 mm, and the number of said segment strands is 20 and said ratio H/R is less than 0.6.

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10. (AMENDED) An overhead cable as set forth in claim 6, wherein said diameter d is within a range from 27 mm to 29 mm, the number of said segment strands is 14, and said ratio H/R is less than 0.02.

Please add the following new claims:

12. (NEW) An overhead cable comprising:

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a tension-bearing core;
a conductive layer arranged at an outer circumference of the core;
an outermost layer formed by twisting together a plurality of segment strands, and having a spiral groove along the longitudinal direction in the outer circumferential surface region of a boundary portion of each adjoining segment strand,

wherein in the contour of the cross-section of said outermost layer, each groove comprises an arc-shaped curve having a predetermined radius R centered about a vertex of a regular polygon;

wherein the intersection between sides of the grooves and the outer contour of the segment strands between grooves defines a sharp, substantially discontinuous edge.

13. (NEW) An overhead cable as set forth claim 12, wherein a diameter d of a circle circumscribing the vertex of the regular polygon is within a range from 12.8 mm to 42.6 mm.

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3 14. (NEW) An overhead cable as set forth in claim 13, wherein said regular polygon is made within a range from a regular 12-sided polygon to a regular 24-sided polygon.

4 15. (NEW) An overhead cable as set forth in claim 14, wherein each segment strand between adjoining grooves comprises an arc-shaped curve which is concave with respect to the straight line connecting adjoining vertexes of the regular polygon by a maximum depth D and a ratio D/d between maximum depth D and the diameter d formed by circumscribing the vertexes of the regular polygon is within a range from 0.0 to 0.018.

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(cont)
5 16. (NEW) An overhead cable as set forth in claim 15, wherein a ratio H/d between a maximum height H from a vertex of said regular polygon to the bottom of said groove and said diameter d is within a range from 0.0045 to 0.0357.

6 17. (NEW) An overhead cable as set forth in claim 16, wherein a ratio H/R between said maximum height and said radius R is within a range from 0.08 to 1.0.

7 18. (NEW) An overhead cable as set forth in claim 17, wherein said diameter d is within a range from 35 mm to 38 mm, the number of said segment strands is 12, and said ratio H/R is less than 0.2.

19. (NEW) An overhead cable as set forth in Claim 12, wherein the outer contour of the segment strands between grooves is concave.

REMARKS

With this amendment, Claims 1, 4, 6, 8, and 10 are amended, and Claims 12-19 have been added. Claims 1-19 are thus presented for further Examination. Applicant respectfully requests reconsideration of the rejections of claims 1-5 in view of the foregoing amendments and the following remarks. Claim 6 has been rewritten in independent form to bring claims 6-11 into condition for allowance as discussed below.

Objections

In response to the Examiner's objection of the Abstract, Applicant has included a replacement Abstract on a separate page following the signature page of this Amendment.

Claims 1, 4, 8, and 10 have been amended in response to Examiners objections. These amendments have been made to correct grammatical and typographic errors in the